

Training and Evaluation Outline Report

Task Number: 05-3-5309

Task Title: Repair a Pipeline

Supporting Reference(s):

Step Number	Reference ID	Reference Name	Required	Primary
	FM 10-67-1	CONCEPTS AND EQUIPMENT OF PETROLEUM OPERATIONS	No	No
	FM 5-19	COMPOSITE RISK MANAGEMENT	Yes	No
	FM 5-482	MILITARY PETROLEUM PIPELINE SYSTEMS	Yes	Yes

Condition: The element receives notification that a pipeline is damaged and requires immediate repair. Damages may occur in steel or aluminum sections of the coupled pipe. Equipment, personnel and materials are available. The repair team receives the operation order (OPORD) and any pertinent data necessary to repair the pipeline leak(s). Some iterations of this task should be performed in MOPP.

Standard: Repair the leak according to technical specification. Accomplish the repair quickly to prevent downtime and further spillage. The time required to perform this task is increased when conducting it in mission-oriented protective posture (MOPP) 4.

Special Equipment: None

Task Statements

Cue: None

DANGER

N/A

WARNING

N/A

CAUTION

None

Remarks: None

Notes: None

TASK STEPS

- * 1. The repair team noncommissioned officer in charge (NCOIC) prepares for pipeline repair operations.
 - a. Coordinates with higher headquarters (HQ) for fire fighting support.
 - b. Reviews the route-trace overlay for the location of the leak.
 - c. Organizes the team for task force (TF) posture.
 - d. Briefs soldiers of the mission requirements.
 - e. Ensures that all gear and equipment (such as first-aid kits, pioneer tools, pipe repair clamps) are available and mission ready.
- 2. The repair team temporarily repairs leak(s) according to the repair specifications if unable to shutdown pumping operations.
 - a. Performs site security quickly and posts guards to prevent entry into the area.
 - b. Ensures that vehicles are parked a safe distance from the site of the leak.
 - c. Approaches the leak cautiously from uphill and from the windward side.
 - d. Observes no-smoking rules.
 - e. Installs a specific clamp according to the type of leak (pit leak, split leak, and overcoupling) to close off the leak.
 - f. Salvages and discards any spilled fuel according to the prescribed regulations.
 - g. Disconnects the line to facilitate the removal of the faulty coupling, pipe, or fitting.
 - h. Removes any temporary coupling and drains any remaining fuel into a container.
 - i. Inspects the pipe, coupling, and gasket to determine the cause of the leak.
 - j. Replaces the part if defective (pipe, gasket, or coupling).
 - k. Opens valves and resumes pumping operations.
- 3. The repair team permanently repairs the pipeline leak according to repair specifications if pumping operations can be shut down.
 - a. Performs the exact sequence as outlined in steps 2a to 2e.
 - b. Ensures that all pumping that affected the area is stopped.
 - c. Closes off the closest gate valves on either side of the leak to capture the fuel.
 - d. Drains the line to decrease pressure.
 - e. Wears the proper clothing if fuel was present.

f. Works in shifts to prevent overexposure to fume inhalation.

Note: For the installation of a new section of pipe, the above sequence of steps is used; however, come-alongs are used to recouple the pipe.

4. The fire fighting team covers any and all spills with fire-retardant foam.

* 5. The repair team NCOIC conducts quality control (QC) and notifies higher HQ of status.

(Asterisks indicates a leader performance step.)

PERFORMANCE MEASURES	GO	NO-GO	N/A
1. The repair team noncommissioned officer in charge (NCOIC) prepared for pipeline repair operations.			
2. The repair team temporarily repaired the leak(s) according to the repair specifications, if unable to shutdown pumping operations.			
3. The repair team permanently repaired the pipeline leak according to repair specifications, if pumping operations could be shut down.			
4. The fire fighting team covered spills with fire-retardant foam.			
5. The repair team NCOIC conducted quality control (QC) inspections and submitted status reports to higher headquarters.			

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL PERFORMANCE MEASURES EVALUATED							
TOTAL PERFORMANCE MEASURES GO							
TRAINING STATUS GO/NO-GO							

ITERATION: 1 2 3 4 5 M

COMMANDER/LEADER ASSESSMENT: T P U

Mission(s) supported: None

MOPP: Sometimes

MOPP Statement: None

NVG: Never

NVG Statement: None

Prerequisite Collective Task(s):

Step Number	Task Number	Title	Proponent	Status
	05-3-5303	Perform Pipe Stringing Operations	05 - Engineers (Collective)	Approved
	05-3-5304	Perform Pipeline Coupling Operations	05 - Engineers (Collective)	Approved

Supporting Collective Task(s):

Step Number	Task Number	Title	Proponent	Status
5.	05-2-0018	Conduct Report Procedures	05 - Engineers (Collective)	Approved

Supporting Individual Task(s):

Step Number	Task Number	Title	Proponent	Status
	052-239-3001	Prepare a Bill of Materials	052 - Engineer (Individual)	Approved
	052-239-3029	Schedule Work	052 - Engineer (Individual)	Approved
	052-239-3030	Read Construction Prints	052 - Engineer (Individual)	Approved
	052-239-3030	Read Construction Prints (DRAFT)	052 - Engineer (Individual)	Analysis
	052-248-1014	Repair a Coupled Pipeline	052 - Engineer (Individual)	Approved

Supporting Drill Task(s): None

TADSS

Step ID	TADSS ID	Title	Product Type	Quantity
No TADSS specified				

Equipment (LIN)

Step ID	LIN	Nomenclature	Qty
	K49775	HOSE AND FITTING KIT	1
	T61908	TRK CGO MTV W/E M1083	1
	W48348	Tool Kit Pioneer Engineer Squad: Land CLR and BLDG Erection	1

Materiel Items (NSN)

Step ID	NSN	LIN	Title	Qty
No equipment specified				

Environment: Environmental protection is not just the law but the right thing to do. It is a continual process and starts with deliberate planning. Always be alert to ways to protect our environment during training and missions. In doing so, you will contribute to the sustainment of our training resources while protecting people and the environment from harmful effects. Refer to FM 3-34.5 Environmental Considerations and GTA 05-08-002 ENVIRONMENTAL-RELATED RISK ASSESSMENT

Safety: In a training environment, leaders must perform a risk assessment in accordance with FM 5-19, Composite Risk Management. Leaders will complete a DA Form 7566 COMPOSITE RISK MANAGEMENT WORKSHEET during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available and civil considerations, (METT-TC). Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW FM 3-11.4, NBC Protection, FM 3-11.5, CBRN Decontamination. In a training environment, leaders must perform a risk assessment in accordance with FM 5-19, Composite Risk Management. Leaders will complete a DA Form 7566 COMPOSITE RISK MANAGEMENT WORKSHEET during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available, time available, and civil considerations, (METT-TC). Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW FM 3-11.4, NBC Protection, FM 3-11.5, CBRN Decontamination.